TEST REPORT

Product Name : LED Bulb T1 (Tunable White)
Model Number : LEDLBT1-L01

Prepared for	:	TFIVE PTY LTD
Address	:	L3, 5 Talavera road. Macquarie park Nsw 2113
Prepared by	:	EMTEK(DONGGUAN) CO., LTD.
Address	:	-1&2F, Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China Tel: +86-769-22807078 Fax: +86-769-22807079

Report Number	:	EDG2206070160L00101R
Date(s) of Tests	:	June 09, 2022
Date of issue	:	June 28, 2022

TEST REPORT
IEC TR 62778
Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires

Report Reference No. ..... :	**EDG2206070160L00101R**
Date of issue.....**:**	June 28, 2022
Total number of pages .....**:**	9 pages (Including 1 attachment)
Name of Testing Laboratory preparing the Report.....**:**	EMTEK (DONGGUAN) CO., LTD.
Applicant's name ..... :	TFIVE PTY LTD
Address.....**:**	L3, 5 Talavera road. Macquarie park Nsw 2113
Test specification:	
Standard.....**:**	IEC TR 62778:2014 (Second Edition)
Test procedure .....**:**	Test report
Non-standard test method……..**:**	N/A
Test Report Form No. ..... :	IEC62778A
TRF Originator.....**:**	TÜV SÜD Product Service GmbH
Master TRF.....**:**	Dated 2016-02

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description .....:	LED Bulb T1 (Tunable White)
Trade Mark .....:	Aqara
Manufacturer.....:	Lumi United Technology Co., Ltd Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370, Liuxian Avenue, Fuguang Community, Taoyuan Residential District, Nanshan District, Shenzhen, China
Model/Type reference.....:	LEDLBT1-L01
Ratings .....:	220-240V~, 50/60Hz, 8,5W

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

Testing location/ address ..... :	-1&2F., Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No. 9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China	
Tested by (name, function, signature) ..... :	Park Zeng	Park Zeng EMTEK (DONGGUAN) CO., LTD. TESTING
Approved by (name, function, signature) .. :	June Luo	June Luo

List of Attachments (including a total number of pages in each attachment):

Attachment No. 1:

Photo documentation (1 page)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
All applicable tests as described in the compliance checklist were performed at EMTEK(DONGGUAN) CO., LTD. -1&2F, Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China	EMTEK(DONGGUAN) CO., LTD. -1&2F, Building 2, Zone A, Zhongda Marine Biotechnology Research and Development Base, No.9, Xincheng Avenue, Songshanhu High-technology Industrial Development Zone, Dongguan, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

No National Differences.

Copy of marking plate:

Test item particulars .....:	
Product evaluated .....:	☐ **LED package** ☐ **LED module** ☐ **Lamp** ☒ **Luminaire**
Rated voltage (V) .....:	220-240V~
Rated current (mA) .....:	--
Rated CCT (K) .....:	N/A
Rated Luminance (Mcd/m²) .....:	N/A
Component report data used .....:	☒ **Not applicable** ☐ **LED package** ☐ **LED module** ☐ **Lamp** Report number:
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement .....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing .....:	
Date of receipt of test item .....:	June 07, 2022
Date (s) of performance of tests.....:	June 09, 2022

General remarks:
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. **Throughout this report a ☒ comma / ☐ point is used as the decimal separator.**
Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.
Name and address of factory (ies) ..... : None
General product information: The product is LED Bulb T1 (Tunable White). Only one model was covered in this report.

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

7	**MEASUREMENT INFORMATION FLOW**		**P**
7.1	**Basic flow**		**P**
	'Law of conservation of luminance' applied		N/A
	Use of only true luminance/radiance values		P
	In case of luminaire: The light source is operated in the luminaire under similar conditions as when tested as a component		P
	In case E_{thr} value for RG2 was established the peak value was derived from angular light distribution		N/A
7.2	**Conditions for the radiance measurement**		**P**
	Standard condition applied (200mm distance, 0,011rad field of view)		P
	Non-standard condition applied		N/A
7.3	**Special cases (I): Replacement by a lamp or LED module of another type**		**N/A**
	Light source is a white light source		N/A
	Evaluation done based on highest luminance		N/A
	Evaluation done based on CCT value		N/A
7.4	**Special cases (II): Arrays and clusters of primary light sources**		**N/A**
	LED package is evaluated as .....:	☐ RG0 unlimited ☐ RG1 unlimited	N/A
	E_{thr} of LED package applies to array		N/A
8	**RISK GROUP CLASSIFICATION**		**P**
	Risk group achieved:		P
	-...Risk Group 0 unlimited		P
	-...Risk Group 1 unlimited		N/A
	- E_{thr} ..... (lx) : Distance to reach RG1..... (m) :		N/A

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

	TABLE: Spectroradiometric measurement		P
	Measurement performed on:	☐ **LED package** ☐ **LED module** ☒ **Lamp** ☐ **Luminaire**	
	Model number ..... :	LEDLBT1-L01	
	Test voltage (V) ..... :	240V	—
	Test current (mA) ..... :	--	—
	Test frequency (Hz) ..... :	--	—
	Ambient, t (°C) ..... :	25	—
	Measurement distance ..... :	☒ 20 cm ☐ ... cm	—
	Source size ..... :	☒ Non-small ☐ Small : .... mm	—
	Field of view ..... :	☐ 100 mrad ☒ 11 mrad ☐ 1,7 mrad (for small sources)	—

Item	Symbol	Units	Result	Remark
Correlated colour temperature	CCT	K	6419	--
x/y colour coordinates			/	--
Blue light hazard radiance	L_B	$W/(m^2 \cdot sr^1)$	4,491E+01	RG0
Blue light hazard irradiance	E_B	W/m^2	--	--
Luminance	L	cd/m^2	6,142E+04	--
Illuminance	E	lx	442	--
Supplementary information:--				

Fig 1 - Whole view

*** End of Report ***

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